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Substitute for form 1449B/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/677,210
		Filing Date	10/02/2003
		First Named Inventor	Felix A. Perriello
		Group Art Unit	1724
		Examiner Name	Chester T. Barry
		Attorney Docket Number	GLOB 64012
Sheet 1	of 9		

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
CTB		WILSON ET AL., "Biotransformation of Trichloroethylene in Soil," <i>Applied and Environmental Microbiology</i> , January, 1985; p.242-243, Vol. 49, No. 1.	
		NELSON ET AL., "Aerobic Metabolism of Trichloroethylene by a Bacterial Isolate," <i>Applied and Environmental Microbiology</i> , August 1986, p. 383-384, Vol. 52.	
		LITTLE ET AL., "Trichloroethylene Biodegradation by a Methane-Oxidizing Bacterium," <i>Applied and Environmental Microbiology</i> , April 1988, p. 951-956, Vol. 54.	
		ARCIERO ET AL. "Degradation of Trichloroethylene by the Ammonia-Oxidizing Bacterium <i>Nitrosomonas europaea</i> ," <i>Biochemical and Biophysical Research Communications</i> , March 15, 1989; p. 640-643, Vol. 159, No. 2.	
		OLDENHUIS ET AL., "Degradation of Chlorinated Aliphatic Hydrocarbons by <i>Methylosinus trichosporium</i> OB3b Expressing Soluble Methane Monooxygenase," <i>Applied and Environmental Microbiology</i> , November 1989; p. 2819-2826, Vol. 55, No. 11.	
		TSIEN ET AL., "Biodegradation of Trichloroethylene by <i>Methylosinus trichosporium</i> OB3b," <i>Applied and Environmental Microbiology</i> , December 1989; p. 3155-3161, Vol. 55, No. 12.	
		VANNELLI ET AL., "Degradation of Halogenated Aliphatic Compounds by the Ammonia-Oxidizing Bacterium <i>Nitrosomonas europaea</i> ," <i>Applied and Environmental Microbiology</i> , April 1990; p. 1169-1171, Vol. 56, No. 4.	
CTB		FOLSOM ET AL. "Phenol and Trichloroethylene Degradation by <i>Pseudomonas cepacia</i> G4: Kinetics and Interactions Between Substrates," <i>Applied and Environmental Microbiology</i> , May 1990; p. 1279-1285, Vol. 56, No. 5.	

Examiner Signature	CHESTER T. BARRY PRIMARY EXAMINED	Date Considered	11/12/06
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CB		BROHOLM ET AL., "Toxicity of 1,1,1-Trichloroethane and Trichloroethene on a Mixed Culture of Methane-Oxidizing Bacteria", <i>Applied and Environmental Microbiology</i> , August 1990, p. 2488-2493, Vol. 56, No. 8.	
		HENRY ET AL., "Influence of Endogenous and Exogenous Electron Donors and Trichloroethylene Oxidation Toxicity on Trichloroethylene Oxidation by Methanotrophic Cultures from a Groundwater Aquifer," <i>Applied and Environmental Microbiology</i> , January 1991; p. 236-244, Vol. 57, No. 1.	
		OLDENHUIS ET AL., "Kinetics of Chlorinated Hydrocarbon Degradation by <i>Methylosinus trichosporium</i> OB3b and Toxicity of Trichloroethylene," <i>Applied and Environmental Microbiology</i> , January 1991; p. 7-14, Vol. 57, No. 1.	
		ALVAREZ-COHEN ET AL., "Product Toxicity and Cometabolic Competitive Inhibition Modeling of Chloroform and Trichloroethylene Transformation by Methanotrophic Resting Cells," <i>Applied Environmental Microbiology</i> , April 1991; p. 1031-1037, Vol. 57, No. 4.	
		BÜYÜKSÖNMEZ ET AL., "Optimization of Simultaneous Chemical and Biological Mineralization of Perchloroethylene," <i>Applied and Environmental Microbiology</i> , June 1999; p. 2784-2788, Vol. 65, No. 6.	
		MAYMÓ-GATELL ET AL., "Reductive Dechlorination of Chlorinated Ethenes and 1, 2-Dichloroethane by ' <i>Dehalococcoides ethenogenes</i> ' 195," <i>Applied and Environmental Microbiology</i> , July 1999; p. 3108-3113, Vol. 65, No. 7.	
CB		HAMAMURA ET AL., "Diversity in Butane Monooxygenases Among Butane-Grown Bacteria," <i>Applied and Environmental Microbiology</i> , October 1999; p. 4586-4593, Vol. 65, No. 10.	

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CB		LÖFFLER ET AL., "16S rRNA Gene-Based Detection of Tetrachloroethene-Dechlorinating <i>Desulfuromonas</i> and <i>Dehalococcoides</i> Species," <i>Applied and Environmental Microbiology</i> , April 2000; p. 1369-1374, Vol. 66, No. 4.	
		FOGEL ET AL., Biodegradation of Chlorinated Ethenes by Methane-Utilizing Mixed Culture, <i>Applied and Environmental Microbiology</i> , April 1986, pp 720-724, Vol. 51, No. 4.	
		WACKETT ET AL., Survey of Microbial Oxygenases: Trichloroethylene Degradation by Propane-Oxidizing Bacteria, <i>Applied and Environmental Microbiology</i> , November 1989, pp 2960-2964, Vol. 55, No. 11.	
		FOX, Status and Trends in Bioremediation Treatment Technology, <i>Remediation</i> , Summer 1991, pp 293-303.	
		ALVAREZ-COHEN ET AL., Characterization of a Methane-Utilizing Bacterium from a Bacterial Consortium That Rapidly Degrades Trichloroethylene and Chloroform, <i>Applied and Environmental Microbiology</i> , June 1992, pp 1886-1893, Vol. 58, No. 6.	
		CHANG ET AL., Transformation Capacities of Chlorinated by Mixed Cultures Enriched on Methane, Propane, Toluene, or Phenol, <i>Biotechnology and Bioengineering</i> , November 9, 1994, pp 440-449, Vol. 45.	
CB		KIM ET AL., Aerobic Cometabolism of Chloroform and 1,1,1-Trichloroethane by Butane-Grown Microorganisms, <i>Bioremediation Journal</i> , 1997, pp 135-148, Vol. 1, No. 2.	

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CTB		HAMAMURA ET AL., Chloroform Cometabolism by Butane-Grown CF8, <i>Pseudomonas butanovora</i> , and <i>Mycobacterium vaccae</i> JOB5 and Methane-Grown <i>Methylosinus trichosporium</i> OB3b, <i>Applied and Environmental Microbiology</i> , September 1997, pp 3607-3613, Vol. 63, No. 9.	
		STEFFAN ET AL., Biodegradation of the Gasoline Oxygenates Methyl tert-Butyl Ether, Ethyl tert-Butyl Ether, and tert-Amyl Methyl Ether by Propane-Oxidizing Bacteria, <i>Applied and Environmental Microbiology</i> , November 1997, pp 4216-4222, Vol. 63, No. 11.	
		DE BRUIN ET AL., "Complete Biological Reductive Transformation of Tetrachloroethene to Ethane", <i>Applied and Environmental Microbiology</i> , June 1992, p. 1996-2000, Vol. 58, No. 6. [ABSTRACT]	
		MOHN ET AL., "Reductive Dehalogenation of Chlorophenols by Desulfomonile tiedjei DCB-1", <i>Applied and Environmental Microbiology</i> , April 1992, p. 1367-1370, Vol. 58, No. 4. [ABSTRACT]	
		SO ET AL., "Initial Reactions in Anaerobic Alkane Degradation by a Sulfate Reducer, Strain AK-01", <i>Applied and Environmental Microbiology</i> , December 1999, p. 5532-5540, Vol. 65, No. 12. [ABSTRACT]	
		HAGGBLOM ET AL., "Influence of Alternative Electron Acceptors on the Anaerobic Biodegradability of Chlorinated Phenols and Benzoic Acids," <i>Applied and Environmental Microbiology</i> , April 1993; p. 1162-1167, Vol. 59, No. 4. [ABSTRACT]	
CTB		RAMANAND ET AL., "Reductive Dehalogenation of Chlorinated Benzenes and Toluenes Under Methanogenic Conditions," <i>Applied and Environmental Microbiology</i> , October 1993; p. 3266-3272, Vol. 59, No. 10. [ABSTRACT]	

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CTB		COATES ET AL., "Anaerobic Degradation of Polycyclic Aromatic Hydrocarbons and Alkanes in Petroleum-Contaminated Marine Harbor Sediments", <i>Applied and Environmental Microbiology</i> , September 1997, p. 3589-3593, Vol. 63, No. 9. [ABSTRACT]	
		SO ET AL., "Isolation and Characterization of a Sulfate-Reducing Bacterium that Anaerobically Degrades Alkanes", <i>Applied and Environmental Microbiology</i> , July 1999, p. 2969-2976, Vol. 65, No. 7. [ABSTRACT]	
		LAUE ET AL., "Taurine Reduction in Anaerobic Respiration of <i>Bilophila wadsworthia</i> RZATAU", <i>Applied and Environmental Microbiology</i> , May 1997, p. 2016-2021, Vol. 63, No. 5. [ABSTRACT]	
		WISCHNAK ET AL., " <i>Pseudomonas</i> sp. Strain 273, an Aerobic α,ω -Dichloroalkane Degrading Bacterium", <i>Applied and Environmental Microbiology</i> , September 1998, p. 3507-3511, Vol. 64, No. 9. [ABSTRACT]	
		YE ET AL., "Anaerobic Dechlorination of Polychlorobiphenyls (Aroclor 1242) by Pasteurized and Ethanol-Treated Microorganisms from Sediments", <i>Applied and Environmental Microbiology</i> , April 1992, p. 1110-1114, Vol. 58, No. 4. [ABSTRACT]	
		WIEGEL ET AL., "Anaerobic Dehalogenation of Hydroxylated Polychlorinated Biphenyls by <i>Desulfitobacterium dehalogenans</i> ", <i>Applied and Environmental Microbiology</i> , May 1999, p. 2217-2221, Vol. 65, No. 5. [ABSTRACT]	
CTB		WU ET AL., "Establishment of a Polychlorinated Biphenyl-Dechlorinating Microbial Consortium, Specific for Doubly Flanked Chlorines, in a Defined, Sediment-Free Medium", <i>Applied and Environmental Microbiology</i> , January 2000, p. 49-53, Vol. 66, No. 1. [ABSTRACT]	

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CDB		MIGUEZ ET AL., "Monitoring Methanotrophic Bacteria in Hybrid Anaerobic-Aerobic Reactors with PCR and a Catabolic Gene Probe", <i>Applied and Environmental Microbiology</i> , February 1999, p. 381-388, Vol. 65, No. 2. [ABSTRACT]	
		BEDARD ET AL., "Brominated Biphenyls Prime Extensive Microbial Reductive Dehalogenation of Aroclor 1260 in Housatonic River Sediment", <i>Applied and Environmental Microbiology</i> , May 1998, p. 1786-1795, Vol. 64, No. 5. [ABSTRACT]	
		WU ET AL., "Microbial Reductive Dechlorination of Aroclor 1260 in Anaerobic Slurries of Estuarine Sediments", <i>Applied and Environmental Microbiology</i> , March 1998, p. 1052-1058, Vol. 64, No. 3. [ABSTRACT]	
		SANFORD ET AL., "Characterization of Desulfitobacterium chlororespirans sp. nov., Which Grows by Coupling the Oxidation of Lactate to the Reductive Dechlorination of 3-chloro-4-hydroxybenzoate", <i>Applied and Environmental Microbiology</i> , October 1996, p. 3800-3808, Vol. 62, No. 10. [ABSTRACT]	
		NICHOLSON ET AL., "Reductive Dechlorination of Chlorophenols by a Pentachlorophenol-Acclimated Methanogenic Consortium", <i>Applied and Environmental Microbiology</i> , July 1992, p. 2280-2286, Vol. 58, No. 7. [ABSTRACT]	
		VON WINTZINGERODE ET AL., "Phylogenetic Analysis of an Anaerobic, Trichlorobenzene-Transforming Microbial Consortium", <i>Applied and Environmental Microbiology</i> , January 1999, p. 283-286, Vol. 65, No. 1. [ABSTRACT]	
CDB		BEDARD ET AL., "Complete Reductive Dehalogenation of Brominated Biphenyls by Anaerobic Microorganisms in Sediment", <i>Applied and Environmental Microbiology</i> , March 1998, p. 940-947, Vol. 64, No. 3. [ABSTRACT]	

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CTB		VAN EEKERT ET AL., "Degradation and Fate of Carbon Tetrachloride in Unadapted Methanogenic Granular Sludge", <i>Applied and Environmental Microbiology</i> , July 1998, p. 2350-2356, Vol. 64, No. 7. [ABSTRACT]	
		BRADLEY ET AL., "Anaerobic Oxidation of [1,2- ¹⁴ C]Dichloroethene Under Mn(IV)-Reducing Conditions", <i>Applied and Environmental Microbiology</i> , April 1998, p. 1560-1562, Vol. 64, No. 4. [ABSTRACT]	
		FISH ET AL., "Biotransformations of Aroclor 1242 in Hudson River Test Tube Microcosms", <i>Applied and Environmental Microbiology</i> , December 1994, p. 4289-4296, Vol. 60, No. 12. [ABSTRACT]	
		LOCHER ET AL., "Uptake of 4-Toluene Sulfonate by Comamonas testosteroni T-2", <i>J. Bacteriol.</i> , February 1993, p. 1075-1080, Vol. 175, No. 4. [ABSTRACT]	
		SUN ET AL., "Isolation and Characterization of <i>Desulfovibrio dechloracetivorans</i> sp. nov., a Marine Dechlorinating Bacterium Growing by Coupling the Oxidation of Acetate to the Reductive Dechlorination of 2-Chlorophenol", <i>Applied and Environmental Microbiology</i> , June 2000, p. 2408-2413, Vol. 66, No. 6. [ABSTRACT]	
		BOYLE ET AL., "Isolation from Estuarine Sediments of a <i>Desulfovibrio</i> Strain Which Can Grow on Lactate Coupled to the Reductive Dehalogenation of 2,4,6-Tribromophenol", <i>Applied and Environmental Microbiology</i> , March 1999, p. 1133-1140, Vol. 65, No. 3. [ABSTRACT]	
CTB		COLE ET AL., "Isolation and Characterization of a Novel Bacterium Growing Via Reductive Dehalogenation of 2-Chlorophenol", <i>Applied and Environmental Microbiology</i> , October 1994, p. 3536-3542, Vol. 60, No. 10. [ABSTRACT]	

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CTB		DOJKA ET AL., "Microbial Diversity in a Hydrocarbon- and Chlorinated-Solvent-Contaminated Aquifer Undergoing Intrinsic Bioremediation", <i>Applied and Environmental Microbiology</i> , October 1998, p. 3869-3877, Vol. 64, No. 10. [ABSTRACT]	
		HUR ET AL., "Metabolism of Chlorofluorocarbons and Polybrominated Compounds by <i>Pseudomonas putida</i> G786(pHG-2) via an Engineered Metabolic Pathway", <i>Applied and Environmental Microbiology</i> , November 1994, p. 4148-4154, Vol. 60, No. 11. [ABSTRACT]	
		EPA, "Sequential Anaerobic/Aerobic Biodegradation of PCE at Watertown, Massachusetts", Cost and Performance Report, March 2000.	
		HOLLIGER ET AL., "A Highly Purified Enrichment Culture Couples the Reductive Dechlorination of Tetrachloroethene to Growth", <i>Applied and Environmental Microbiology</i> , September 1993, p. 2991-2997, Vol. 59, No. 9. [ABSTRACT]	
		MADSEN ET AL., "Isolation and Characterization of an Anaerobic Chlorophenol-Transforming Bacterium", <i>Applied and Environmental Microbiology</i> , September 1992, p. 2874-2878, Vol. 58, No. 9. [ABSTRACT]	
		MOHN ET AL., "Limited Degradation of Chlorophenols by Anaerobic Sludge Granules", <i>Applied and Environmental Microbiology</i> , July 1992, p. 2131-2136, Vol. 58, No. 7. [ABSTRACT]	
CTB		BAKER ET AL., <i>Bioremediation</i> , pp. 303-304, McGraw-Hill, Inc., 1994.	

Examiner Signature	CHESTER T. BARRY PRIMARY EXAMINER	Date Considered	1/10/06
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		Application Number	10/677,210		
		Filing Date	10/02/2003		
		First Named Inventor	Felix A. Perriello		
		Group Art Unit	1724		
		Examiner Name	Chester T. Barry		
Sheet	9		9	Attorney Docket Number	GLOB 64012

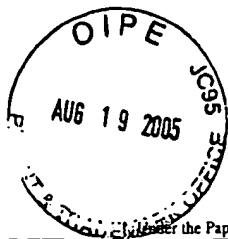
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CB		www.biobutane.com/may2000.htm (downloaded on 11/18/02) dated 05/01/2000.	
		www.biobutane.com/march2000.htm (downloaded on 11/18/02) dated 03/01/2000.	
		Global BioSciences, Inc. Powerpoint® brand audiovisual presentation (downloaded from web on 11/18/02) (undated).	
CB		Air & Waste Management Association Show New Products information sheet (posted June 25, 1999) at www.pollutionengineering.com/events/conferences/awma99/awmanp6.htm (downloaded 11/18/02).	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Complete if Known

Application Number	10/677,210
Filing Date	10/02/2003
First Named Inventor	Felix A. Perriello
Group Art Unit	1724
Examiner Name	Chester T. Barry
Attorney Docket Number	GLOB 64012

Sheet 1 of 5

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		Number	Kind Code ² (if known)			
CTB		3,242,071		Walker	03-22-1966	
		3,616,216		Wegner	10-26-1971	
		3,846,290		Raymond	11-05-1974	
		3,969,446		Franklin, Jr.	07-13-1976	
		4,033,763		Markels Jr.	07-05-1977	
		4,111,808		Fair	09-05-1978	
		4,328,175		Roeckel et al.	05-04-1982	
		4,454,077		Litz	06-12-1984	
		4,522,723		Kauffman et al.	06-11-1985	
		4,645,603		Frankl	09-22-1987	
CTB		4,695,378		Ackman et al.	09-22-1987	

FOREIGN PATENT DOCUMENTS

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		Office ³	Number ³	Kind Code ² (if known)				
CTB		DE	4142063		Wisstrans Umwelt GmbH	12/19/1991		
CTB		EP	0098138		Exxon Research and Engineering Company	01/11/1984		

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				Application Number	10/677,210
				Filing Date	10/02/2003
				First Named Inventor	Felix A. Perriello
				Group Art Unit	1724
				Examiner Name	Chester T. Barry
Sheet	2	of	5	Attorney Docket Number	GLOB 64012

U.S. PATENT DOCUMENTS							
Examiner Initials ¹	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
		Number	Kind Code ² (if known)				
CTB		4,713,343		Wilson Jr. et al.	12-15-1987		
↑		4,737,289		Castaldi et al.	04-12-1988		
		4,789,478		Revis et al.	12-06-1988		
		4,790,940		Castaldi et al.	12-13-1988		
		4,906,454		Melanson Jr. et al.	03-06-1990		
		4,956,080		Josefik	09-11-1990		
		5,006,250		Roberts et al.	04-09-1991		
		5,037,551		Barkley et al.	08-06-1991		
		5,038,715		Fahs II	08-13-1991		
		5,057,221		Bryant et al.	10-15-1991		
		5,061,406		Cheng	10-29-1991		
		5,062,956		Lupton et al.	11-05-1991		
		5,073,309		Bousquet et al.	12-17-1991		
		5,082,652		Mayfield et al.	01-21-1992		
	CTB		5,085,809		Stirling	09-04-1992	

FOREIGN PATENT DOCUMENTS							
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				Application Number	10/677,210
				Filing Date	10/2/2003
				First Named Inventor	Felix A. Perriello
				Group Art Unit	1724
				Examiner Name	Chester T. Barry
Sheet	3	of	5	Attorney Docket Number	GLOB 64012

U.S. PATENT DOCUMENTS						
Examiner Initials [*]	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
CTB		5,169,532		Whitlock	12-08-1992	
		5,277,815		Beeman	01-11-1994	
		5,302,286		Semprini et al.	04-12-1994	
		5,314,076		La Place et al.	05-24-1994	
		5,316,940		Georgiou et al.	05-31-1994	
		5,326,703		Hazen et al.	07-05-1994	
		5,337,820		Jenneman et al.	08-16-1994	
		5,342,769		Hunter et al.	08-30-1994	
		5,354,688		Francis et al.	10-11-1994	
		5,384,048		Hazen et al.	01-24-1995	
		5,397,481		Mattus	03-14-1995	
		5,441,887		Hanson et al.	08-15-1995	
	CTB		5,494,576		Hoppe et al.	02-27-1996

FOREIGN PATENT DOCUMENTS								
Examiner Initials ²	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ³
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				First Named Inventor	Felix A. Perriello
				Group Art Unit	1724
				Examiner Name	Chester T. Barry
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		Number	Kind Code ² (if known)			
CTB		5,512,479		Steffan	04-30-1996	
		5,529,693		Yano et al.	06-25-1996	
		5,651,890		Trost	07-29-1997	
		5,660,730		Lucchese et al.	08-26-1997	
		5,678,632		Moses et al.	10-21-1997	
		5,733,067		Hunt et al.	03-31-1998	
		5,789,236		Jenneman	08-04-1998	
		5,814,514		Steffan et al.	09-29-1998	
		5,820,759		Stewart et al.	10-13-1998	
		5,833,855		Saunders	11-10-1998	
		5,888,396		Perriello	03-30-1999	
		5,916,491		Hills	06-29-1999	
		5,925,290		Hills	07-20-1999	
		6,051,130		Perriello	04-18-2000	
		6,110,372		Perriello	08-29-2000	
CTB		6,156,203		Perriello	12-05-2000	

FOREIGN PATENT DOCUMENTS							
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CTB		6,183,644	B1	Adams et al.	02-06-2001	
		6,210,579	B1	Perriello	04-03-2001	
		6,217,766	B1	Stetter et al.	04-17-2001	
		6,244,346	B1	Perriello	06-12-2001	
		6,245,235	B1	Perriello	06-12-2001	
		6,303,366		Steffan et al.	10-16-2001	
		6,306,302	B1	Maree et al.	10-23-2001	
		6,322,700	B1	Suthersan	11-27-2001	
		6,361,694	B1	Trost	03-26-2002	
		6,383,388	B1	Krauter et al.	05-07-2002	
		6,391,209	B1	Belongia et al.	05-21-2002	
		6,488,850	B2	Perriello	12-03-2002	
		Re. 32,562		Litz	12-15-1987	
		6,669,846	B2	Perriello	12-30-2003	
		2003/0136735	A1	Perriello	07-24-2003	
CTB		2003/0201227	A1	Perriello	10-30-2003	

FOREIGN PATENT DOCUMENTS								
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